## IN THE CLAIMS:

## 1. (Withdrawn) Compounds of formula I:

wherein

 $R^1=H, \ or \ C_1\text{-}C_{20} \ alkyl, \ cycloalkyl, \ alkenyl, \ aryl, \ arylalkyl, \ or \ alkylaryl, \ =CHR^3, \ -C(O)OR^3, \ -C(O)R^3, \ -CH_2C(O)OR^3, \ -CH_2C(O)NHR^3, \ where \ R^3 \ is \ H \ or \ C_1\text{-}C_{10} \ alkyl, \ cycloalkyl, \ or \ alkenyl;$ 

 $R^2 = C_1 - C_{20}$  alkyl, cycloalkyl, alkenyl, aryl, arylalkyl, or alkylaryl;

 $X^1 = NHR^4, where \, R^4 \, is \, H, \, C_1 - C_{20} \, alkyl, \, cycloalkyl, \, alkenyl, \, aryl, \, arylalkyl, \, or \, alkylaryl, \\ the \, R^4 \, group \, optionally \, containing \, a \, carbonyl \, group, \, a \, carboxyl \, group, \, a \, carboxyamide \, group, \\ an \, alcohol \, group, \, or \, an \, ether \, group, \, the \, R^4 \, group \, further \, optionally \, containing \, one \, or \, more \\ halogen \, atoms.$ 

- 2. (Withdrawn) The compounds of claim 1, wherein  $R^1$  is H, or  $C_1$ - $C_{10}$  alkyl, cycloalkyl, alkenyl, aryl, arylalkyl, or alkylaryl, or = $CH_2$ .
- 3. (Withdrawn) The compounds of claim 2, wherein R<sup>1</sup> is -CH<sub>3</sub> or =CH<sub>2</sub>.

4. (Withdrawn) The compounds of claim 3, wherein the compound is selected from the group consisting of:

H <sub>3</sub> C(H <sub>2</sub> C),	H <sub>2</sub> C(H <sub>2</sub> C) <sub>2</sub>	H <sub>0</sub> C(H <sub>2</sub> C) <sub>3</sub>
н <sub>5</sub> С(H <sub>2</sub> C)3 <sup>2</sup> Н он	H <sub>3</sub> C(H <sub>2</sub> C) <sub>3</sub> ····································	(a) CH <sub>3</sub> H <sub>3</sub> C(H <sub>2</sub> C), and
H <sub>3</sub> C(H <sub>2</sub> C)y		

- (Withdrawn) The compounds of claim 1, wherein R<sup>4</sup> is -CH<sub>2</sub>C(O)OR<sup>5</sup> or
   -CH<sub>2</sub>C(O)NHR<sup>5</sup>, where R<sup>5</sup> is H, C<sub>1</sub>-C<sub>10</sub> alkyl, cycloalkyl, alkenyl, aryl, arylalkyl, or alkylaryl.
- (Withdrawn) The compounds of claim 1, wherein the compound is selected from the group consisting of:

7. (Withdrawn) Compounds of formula II:

11

 $R^6=H, or\ C_1-C_{20}\ alkyl,\ cycloalkyl,\ alkenyl,\ aryl,\ arylalkyl,\ or\ alkylaryl,\ -C(O)OR^8,\ -C(O)R^8,\ -CH_2C(O)OR^8,\ -CH_2C(O)NHR^8,\ where\ R^8\ is\ H\ or\ C_1-C_{10}\ alkyl,\ cycloalkyl,\ or\ alkenyl;$ 

 $R^7 = C_1 - C_{20}$  alkyl, cycloalkyl, alkenyl, aryl, arylalkyl, or alkylaryl;

 $X^2 = NHR^9, where \, R^9 \, is \, H, \, C_1 - C_{20} \, alkyl, \, cycloalkyl, \, alkenyl, \, aryl, \, arylalkyl, \, or \, alkylaryl, \\ the \, R^9 \, group \, optionally \, containing \, a \, carbonyl \, group, \, a \, carboxyl \, group, \, a \, carboxyamide \, group, \\ an \, alcohol \, group, \, or \, an \, ether \, group, \, the \, R^9 \, group \, further \, optionally \, containing \, one \, or \, more \\ halogen \, atoms;$ 

with the proviso that when R<sup>6</sup> is-CH<sub>3</sub>, and R<sup>7</sup> is n-C<sub>13</sub>H<sub>27</sub>, X<sup>2</sup> is not -NHC<sub>2</sub>H<sub>5</sub>.

- 8. (Withdrawn) The compounds of claim 7, wherein  $R^6$  is  $C_1$ - $C_{10}$  alkyl, cycloalkyl, alkenyl, aryl, arylalkyl, or alkylaryl.
- (Withdrawn) The compounds of claim 8, wherein R<sup>6</sup> is -CH<sub>3</sub>.
- $\label{eq:compounds} 10. \qquad \text{(Withdrawn)} \quad \text{The compounds of claim 7, wherein $R^9$ is-$C$H$_2$C(O)OR$^{10}$ or-$C$H$_2$C(O)NHR$^{10}$, where $R^{10}$ is $H$, $C$_1$-$C$_{10}$ alkyl, cycloalkyl, alkenyl, aryl, arylalkyl, or alkylaryl.$
- 11. (Withdrawn) Compounds of formula IV:

IV

 $R^{16}=H, \ or \ C_1\text{-}C_{20} \ alkyl, \ cycloalkyl, \ alkenyl, \ aryl, \ arylalkyl, \ or \ alkylaryl, \text{-}C(O)OR^{18}, \ \text{-}CH_2C(O)OR^{18}, \ \text{-}CH_2C(O)NHR^{18}, \ where } R^{18} \ is \ H \ or \ C_1\text{-}C_{10} \ alkyl, \ cycloalkyl, \ or \ alkenyl;$ 

 $R^{17} = C_1 - C_{20}$  alkyl, cycloalkyl, alkenyl, aryl, arylalkyl, or alkylaryl;

 $X^4 = OR^{19}$ , where  $R^{19}$  is  $C_{1}$ – $C_{20}$  alkyl, cycloalkyl, alkenyl, aryl, arylalkyl, or alkylaryl, the  $R^{19}$  group optionally containing a carbonyl group, a carboxyl group, a carboxyamide group, an alcohol group, or an ether group, the  $R^{19}$  group further optionally containing one or more halogen atoms;

with the proviso that when  $R^{16}$  is -CH<sub>3</sub> and  $R^{19}$  is -CH<sub>3</sub>, then  $R^{17}$  is not substituted or unsubstituted phenyl, -nC<sub>3</sub>H<sub>7</sub>, -nC<sub>5</sub>H<sub>11</sub>, -nC<sub>13</sub>H<sub>27</sub>, and with the further proviso that when  $R^{16}$  is H and  $R^{19}$  is -CH<sub>3</sub>, then  $R^{17}$  is not substituted or unsubstituted phenyl or -CH<sub>3</sub>, and when  $R^{16}$  is H and  $R^{19}$  is -CH<sub>2</sub>CH<sub>3</sub>, then  $R^{17}$  is not -iC<sub>4</sub>H<sub>7</sub>, or substituted or unsubstituted phenyl.

- 12. (Withdrawn) The compounds of claim 11, wherein  $R^{16}$  is  $C_1$ - $C_{10}$  alkyl, cycloalkyl, alkenyl, arylalkyl, or alkylaryl.
- 13. (Withdrawn) The compounds of claim 12, wherein R<sup>16</sup> is -CH<sub>3</sub>.
- $14. \qquad (Withdrawn) \ \, The compounds of claim 11, wherein R^{19} is -CH_2C(O)OR^{20} or \\ -CH_2C(O)NHR^{20}, where R^{20} is C_1-C_{20} alkyl, cycloalkyl, alkenyl, aryl, arylalkyl, or alkylaryl.$
- 15. (Previously Presented) Compounds of formula V:



$$\begin{split} R^{21} = C_2 \cdot C_{20} \text{ alkyl, cycloalkyl, alkenyl, aryl, arylalkyl, or alkylaryl, = CHR^{23}, -C(O)OR^{23} \\ -C(O)R^{23}, -CH_2C(O)OR^{23}, -CH_2C(O)NHR^{23}, \text{ where } R^{23} \text{ is H or } C_FC_{10} \text{ alkyl, cycloalkyl, or alkenyl, except when } R^{21} \text{ is = CHR}^{23}, R^{23} \text{ is not H;} \end{split}$$

 $R^{22} = C_2 - C_{20}$  alkyl, cycloalkyl, alkenyl, aryl, arylalkyl, or alkylaryl;

with the proviso that when  $R^{21}$  is -COOH, then  $R^{22}$  is not -nC<sub>5</sub>H<sub>11</sub>, or C<sub>13</sub>H<sub>27</sub>, and with the further proviso that when  $R^{21}$  is -CH<sub>2</sub>COOH, then  $R^{22}$  is not -CH<sub>2</sub>CH<sub>3</sub>, or - iC<sub>3</sub>H<sub>11</sub>.

- 16. (Previously Presented) The compounds of claim 15, wherein  $R^{21}$  is  $C_2$ - $C_{20}$  alkyl, cycloalkyl, alkenyl, aryl, arylalkyl, or alkylaryl.
- 17. (Cancelled)
- 18. (Withdrawn) Compounds of formula VI:

 $R^{24} = C_2 - C_{20}$  alkyl, cycloalkyl, alkenyl, aryl, arylalkyl, or alkylaryl,  $-C(O)OR^{26}$ ,

 $-C(O)R^{26}, -CH_2C(O)OR^{26}, -CH_2C(O)NHR^{26}, \ where \ R^{26} \ is \ H \ or \ C_1-C_{10} \ alkyl, \ cycloalkyl, \ or \ alkenyl;$ 

 $R^{25} = C_1 - C_{20}$  alkyl, cycloalkyl, alkenyl, aryl, arylalkyl, or alkylaryl;

with the proviso that when  $R^{24}$  is -COOH, then  $R^{25}$  is not -CH<sub>3</sub>, -nC<sub>5</sub>H<sub>11</sub>, or C<sub>13</sub>H<sub>27</sub>, and with the further proviso that when  $R^{24}$  is -CH<sub>2</sub>COOH, then  $R^{25}$  is not-CH<sub>3</sub>-CH<sub>2</sub>CH<sub>3</sub>, or – iC<sub>5</sub>H<sub>11</sub>.

- 19. (Withdrawn) The compounds of claim 18, wherein  $R^{2i}$  is  $C_2$ - $C_{10}$  alkyl, cycloalkyl, alkenyl, aryl, arylalkyl, or alkylaryl.
- 20. (Previously Presented) Compounds of formula VII:

wherein

 $R^{27} = C_{12}$  alkyl,  $C_{14}$  alkyl,  $C_{16}$ - $C_{20}$  alkyl.

21 - 22. (Cancelled)

 (Withdrawn) A pharmaceutical composition comprising a pharmaceutical diluent and a compound of formula IX:

$$\begin{split} R^{20} = H, \text{ or } C_{l^*}C_{20} \text{ alkyl, cycloalkyl, alkenyl, aryl, arylalkyl, or alkylaryl, =CHR^{31},\\ -C(O)OR^{31}, -C(O)OR^{31}, -CH_2C(O)OR^{31}, -CH_2C(O)NHR^{31}, \text{ where } R^{31} \text{ is } H \text{ or } C_{l^*}C_{l0} \text{ alkyl,}\\ \text{cycloalkyl, or alkenyl;} \end{split}$$

R<sup>30</sup> = C<sub>1</sub>-C<sub>20</sub> alkyl, cycloalkyl, alkenyl, aryl, arylalkyl, or alkylaryl;

 $X^5 = -OR^{32}$ , or -NHR<sup>32</sup>, where  $R^{32}$  is H,  $C_PC_{20}$  alkyl, cycloalkyl, alkenyl, aryl, arylalkyl, or alkylaryl, the  $R^{32}$  group optionally containing a carbonyl group, a carboxyl group, a carboxyamide group, an alcohol group, or an ether group, the  $R^{32}$  group further optionally containing one or more halogen atoms;

with the proviso that when  $R^{29}$  is =CH<sub>2</sub>, then  $X^5$  is not OH.

- (Withdrawn) The pharmaceutical compositions of claim 23, wherein R<sup>29</sup> is C<sub>1</sub>-C<sub>10</sub> alkyl, cycloalkyl, alkenyl, aryl, arylalkyl, or alkylaryl, or =CH<sub>2</sub>.
- 25. (Withdrawn) The pharmaceutical compositions of claim 24, wherein R<sup>29</sup> is -CH<sub>3</sub> or =CH<sub>2</sub>.

- 26. (Withdrawn) The pharmaceutical compositions of claim 23, wherein  $R^{32}$  is  ${}^{-}$ CH<sub>2</sub>C(O)OR<sup>33</sup> or  ${}^{-}$ CH<sub>2</sub>C(O)NHR<sup>35</sup>, where  $R^{33}$  is  $C_{\Gamma}C_{l0}$  alkyl, cycloalkyl, alkenyl, aryl, arylalkyl, or alkylaryl.
- 27. (Withdrawn) The pharmaceutical compositions of claim 23, where  $R^{2\theta}$  is  $-C_6H_{13}$  or  $-C_8H_{17}$ .
- 28. (Withdrawn) The pharmaceutical compositions of claim 23, wherein the compound is selected from the group consisting of:

- (Withdrawn) A pharmaceutical composition comprising a pharmaceutical diluent and a compound according to claim 1.
- (Withdrawn) A pharmaceutical composition comprising a pharmaceutical diluent and a compound according to claim 7.
- (Withdrawn) A pharmaceutical composition comprising a pharmaceutical diluent and a compound according to claim 11.

- (Original) A pharmaceutical composition comprising a pharmaceutical diluent and a compound according to claim 15.
- (Withdrawn) A pharmaceutical composition comprising a pharmaceutical diluent and a compound according to claim 18.
- (Original) A pharmaceutical composition comprising a pharmaceutical diluent and a compound according to claim 20.
- (Withdrawn) A pharmaceutical composition comprising a pharmaceutical diluent and a compound according to claim 22.
- (Withdrawn) A pharmaceutical composition comprising a pharmaceutical diluent and a compound according to Formula III:

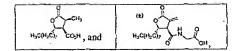
R<sup>11</sup> = H, or C<sub>1</sub>-C<sub>20</sub> alkyl, cycloalkyl, alkenyl, aryl, arylalkyl, or alkylaryl, =CHR<sup>13</sup>,

-C(O)OR<sup>13</sup>, -C(O)R<sup>13</sup>, -CH<sub>2</sub>C(O)OR<sup>13</sup>, -CH<sub>2</sub>C(O)NHR<sup>13</sup>, where  $R^{13}$  is H or  $C_1$ - $C_{10}$  alkyl, cycloalkyl, or alkenyl;

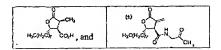
 $R^{12} = C_1 \hbox{-} C_{20} \ alkyl, \ cycloalkyl, \ alkenyl, \ aryl, \ arylalkyl, \ or \ alkylaryl \ ;$ 

 $X^3 = \mathsf{OR}^{14}, \text{ where } R^{14} \text{ is } C_1\text{-}C_{20} \text{ alkyl, cycloalkyl, alkenyl, aryl, arylalkyl, or alkylaryl, the} \\ R^{14} \text{ group optionally containing a carbonyl group, a carboxyl group, a carboxyamide group, an} \\ \text{alcohol group, or an ether group, the } R^{14} \text{ group further optionally containing one or more halogen} \\ \text{atoms.}$ 

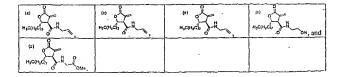
- (Withdrawn) The pharmaceutical formulation of claim 36, wherein R<sup>11</sup> is C<sub>1</sub>-C<sub>10</sub> alkyl, cycloalkyl, alkenyl, aryl, arylalkyl, or alkylaryl, or =CH<sub>2</sub>.
- 38. (Withdrawn) The pharmaceutical formulation of claim 37, wherein R<sup>11</sup> is -CH<sub>3</sub> or =CH<sub>2</sub>.
- 39. (Withdrawn) The pharmaceutical formulation of claim 36, wherein  $R^H$  is  $-CH_2C(O)OR^{15}$  or  $CH_2C(O)NHR^{15}$ , where  $R^H$  is  $C_1-C_{10}$  alkyl, cycloalkyl, alkenyl, aryl, arylalkyl, or alkylaryl.
- 40. (Withdrawn) A method of inducing weight loss in an animal or human subject comprising administering an effective amount of a pharmaceutical composition according to claim 23 to said subject.
- 41. (Withdrawn) The method of claim 40, wherein the subject is a human.
- 42. (Withdrawn) The method of claim 40, wherein the subject is an animal.
- (Withdrawn) The method of claim 41, wherein the pharmaceutical composition comprises a compound selected from the group consisting of



44. (Withdrawn) The method of claim 42, wherein the pharmaceutical composition comprises a compound selected from the group consisting of:



- 45. (Withdrawn) A method of inhibiting growth of cancer cells in an animal or human subject, comprising administering an effective amount of a pharmaceutical composition according to claim 23 to said subject.
- 46. (Withdrawn) The method of claim 45, wherein the subject is a human.
- 47. (Withdrawn) The method of claim 45, wherein the subject is an animal.
- 48. (Withdrawn) The method of claim 46, wherein the pharmaceutical composition comprises a compound selected from the group consisting of



49. (Withdrawn) The method of claim 47, wherein the pharmaceutical composition comprises a compound selected from the group consisting of:

(±) 0 H H3C0H3C)3 H	H <sub>3</sub> C(H <sub>3</sub> C) <sub>B</sub>	HACHACÍA NA	(a) 0 N N OH, and
(e) 0 H <sub>3</sub> C(H <sub>2</sub> C), N P OMo.			

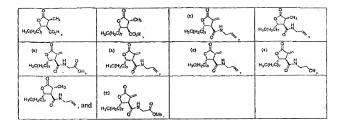
- 50. (Withdrawn) A method of stimulating the activity of CPT-1 in an animal or human subject comprising administering an effective amount of a pharmaceutical composition according to claim 23 to said subject.
- 51. (Withdrawn) The method of claim 50, wherein the subject is a human.
- 52. (Withdrawn) The method of claim 50, wherein the subject is an animal.
- 53. (Withdrawn) The method of claim 51, wherein the compound is:

54. (Withdrawn) The method of claim 52, wherein the compound is:

- 55. (Withdrawn) A method of inhibiting the activity of neuropeptide-Y in an animal or human subject comprising administering an effective amount of a pharmaceutical composition according to claim 23 to said subject.
- 56. (Withdrawn) The method of claim 55, wherein the subject is a human.
- 57. (Withdrawn) The method of claim 55, wherein the subject is an animal.
- 58. (Withdrawn) A method of inhibiting fatty acid synthase activity in an animal or human subject comprising administering an effective amount of a pharmaceutical composition according to claim 23 to said subject.
- 59. (Withdrawn) The method of claim 58, wherein the subject is a human.
- 60. (Withdrawn) The method of claim 58, wherein the subject is an animal.
- 61. (Withdrawn) The method of claim 59, wherein the compound is selected from the group consisting of:

HyCgHzCh CO.H	HICHER COH,	(a) CH <sub>2</sub>	H=C(H,C);
H <sub>2</sub> C(H <sub>2</sub> C) <sub>2</sub> H OH,	(a) 0 H3CH4CH3 N	rancis H	(a) OH,
H <sub>3</sub> C(H <sub>2</sub> C) <sub>7</sub> -CH <sub>3</sub> , and	H <sub>2</sub> C(H <sub>2</sub> O <sub>3</sub> )		

 (Withdrawn) The method of claim 60, wherein the compound is selected from the group consisting of:



63. (Withdrawn) A method of inhibiting growth of invasive microbial cells in an animal or human subject comprising the administration of an effective amount of a pharmaceutical composition according to claim 23 to said subject.

## 64 - 65. (Cancelled)

66. (Withdrawn) The method of claim 64, wherein the compound is selected from the group consisting of:

67. (Withdrawn) The method of claim 65, wherein the compound is selected from the group consisting of:

- 68. (Not Entered)
- 69. (Previously Presented) Compounds according to claim 15, wherein

R<sup>21</sup> = cycloalkyl, alkenyl, aryl, arylalkyl, or alkylaryl, =CHR<sup>23</sup>, -C(O)OR<sup>23</sup> -C(O)R<sup>23</sup>,

-CH<sub>2</sub>C(O)OR<sup>23</sup>, -CH<sub>2</sub>C(O)NHR<sup>23</sup>, where  $R^{23}$  is H or C<sub>I</sub>-C<sub>10</sub> alkyl, cycloalkyl, or alkenyl, except when  $R^{21}$  is =CHR<sup>23</sup>,  $R^{23}$  is not H:

 $R^{22} = C_1 - C_{20}$  alkyl, cycloalkyl, alkenyl, aryl, arylalkyl, or alkylaryl;

with the proviso that when  $R^{21}$  is -COOH, then  $R^{22}$  is not -C<sub>13</sub>H<sub>27</sub>, and with the further proviso that when  $R^{21}$  is -CH<sub>2</sub>COOH, then  $R^{22}$  is not -CH<sub>2</sub>CH<sub>3</sub>, or - iC<sub>3</sub>H<sub>11</sub>.

- (Previously Presented) A pharmaceutical composition comprising a pharmaceutical diluent and a compound according to claim 69.
- 71. (Previously Presented) Compounds of formula X:

wherein

 $R^{42} = C_2 - C_{20}$  alkyl, cycloalkyl, alkenyl, aryl, arylalkyl, or alkylaryl.

72. (Previously Presented) A pharmaceutical composition comprising a pharmaceutical diluent and a compound according to claim 71.